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Rural Science-Society-Policy
Interfaces

MAP Position Paper

CHANGE IN PRODUCTION AND DIVERSIFICATION OF THE RURAL ECONOMY



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Topic and headline messages

Responding to and following the market signals and trends generated by consumer expectations and changing preferences related to agri-food industry are perceived as the main drivers in diversifying the rural economy in rural Transylvania, especially for the peripheral areas.

Rural economy diversification in the villages less connected to the urban areas in Transylvania implies the change of business models, mainly of agricultural business models that prevail in the current economic landscape, through:

- Diversification of farm activity.
- Vertical integration in the (short) agri-food chains either on the farm or through cooperation with actors from other links in the chain: processors, retailers, etc.
- Sustainable management of local biological resources through environmentally friendly processing techniques and (re) integration or reconceptualization of circularity in the rural economy.
- (re) Construction / assertion of local identity by exposing a narrative recognised and assumed by all local actors, which represents the foundation of new business models and allows the individualisation of local rural economy products (local brand).

The change of business models in rural Transylvania is supported by an incipient process of **entrepreneurial discovery based on market dynamics**, involvement of actors from the food chains and support of public authorities through national programs tailored to consumer preferences.

Problem being addressed and key questions

According to the members of the Transylvania Platform, **the most feasible strategic alternatives to support the diversification of the rural economy** in the rural area of Transylvania in the next 20 years include:

- *Farm diversification and development of agri-food chains and*
- *Bio-economy and sustainable management of resources.*

The key questions addressed during the discussions with the members of the Transylvania platform for each dimension concerned:

- 1) What are the key needs for the development of the rural economy in your MAP, and how can they be addressed most effectively?
- 2) How can policy interventions support positive changes in the diversification of the rural economy, considering solutions that are needed at the local and national levels, and what are the implications for the wider policy framework (European Union level or others)? What can public administrations (at all levels) do to facilitate and encourage positive changes in the diversification of the rural economy?
- 3) What are the research needs and gaps?

1. Farm diversification and food chains: new business models & employment

1.1. Key scientific evidence

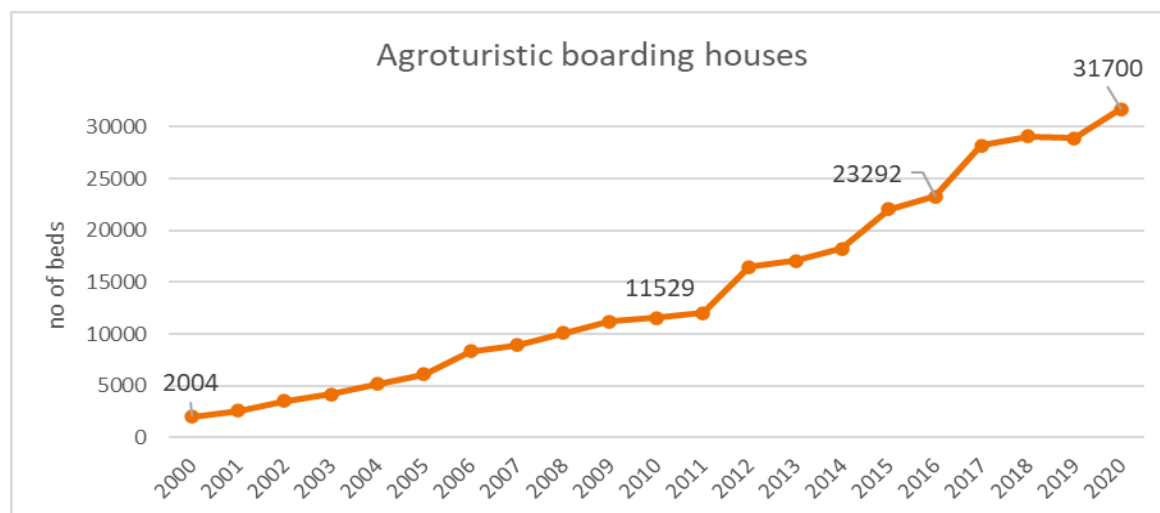
Farm diversification is understood as the creation of any other gainful activities on the farm, directly related to agriculture. These include “*all activities other than farm work, directly related to the holding or having an economic impact on the holding*”. “*Directly related*” means that either the resources of the holding (area, buildings, machinery, etc.) or that its products are used in the activity. Examples include tourist accommodation, handicraft, processing of farm products, and wood processing.

Diversification is always **assessed at the level of the farm** and all types of farms are covered. Diversification activities can be carried out by persons other than the farm manager (his/her spouse, other family members or people external to the household) (EPRS, 2016). Farm diversification leads to the expansion of the portfolio of products and services, contributing to a better integration with other operators of the local economy.

Statistical sources provide brief, non-updated and general information on the incidence of income gaining activities in the farm system. Thus, the latest Farm Structure Survey includes only information at national level. According to this, in the year 2016, 5% of the holdings across the country carried out income gaining activities directly related to the agricultural holding.

Statistical evidence on the development of agri-tourism facilities shows the **existence of an accelerated upward trend in the number of farms that have diversified their activity by including accommodation facilities**. The number of beds in agri-tourism boarding houses increased by about 35% in Transylvania in 2020 compared to 2010 (Figure 1).

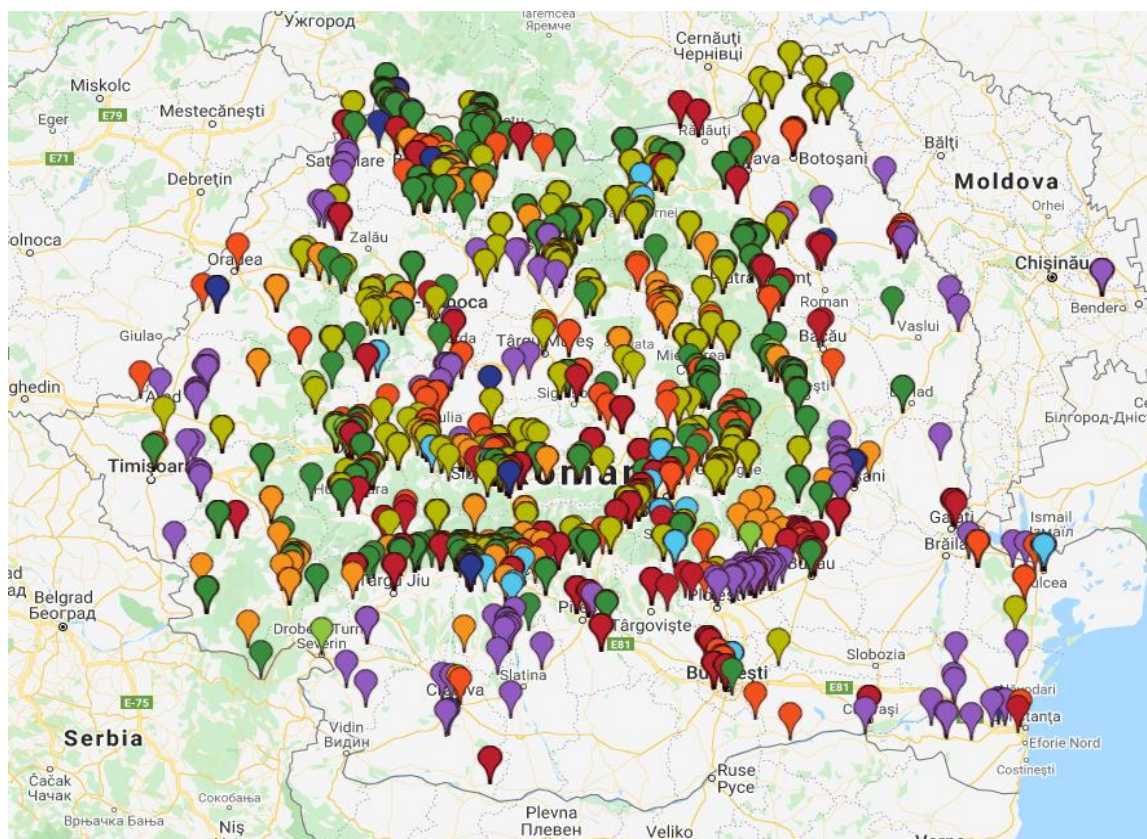
Figure 1. Evolution of agri-tourism in Transylvania



Source: INSSE, TEMPO On-line database, [TUR102D]

Empirical findings highlight **the increase of consumers’ appetite for “traditional” agri-food and handicraft products, with local/regional specificity**. Farmers from Transylvania have seized the opportunity and are adapting their supply to meet consumers’ preferences. The Ministry of Agriculture, in turn, has supported this approach by creating the normative and administrative framework for the certification of local producers’ food products. According to this normative framework, Romania has implemented five national quality schemes for food products: *traditional product*, *recognised/acknowledged recipe*, *mountain product*, *certified wines*, *products that have acquired protection at national level*. Each quality scheme has acquired a specific label certifying the appurtenance to the scheme and guaranteeing the quality of the products to consumers.

Map 1. Territorial distribution of producers attested to produce certified food products (national and European quality schemes), 2021



Source: <https://cpac.afir.info/Harta-Produsatorilor>

In the year 2021, most producers certified in these quality schemes are located in Transylvania, as can be seen from the map above.

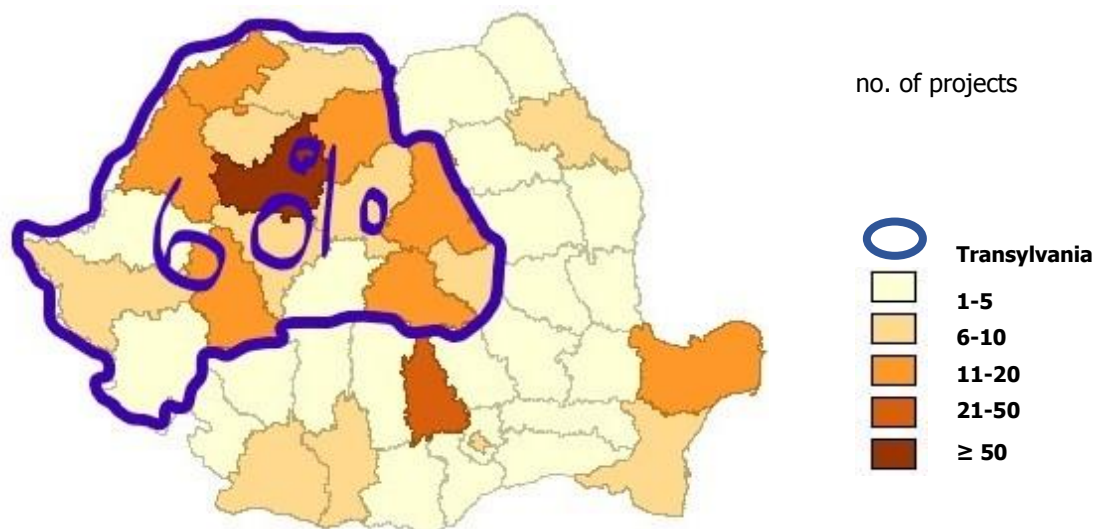
The increasing number of producers attested in the national quality schemes for food products reveals the increase of vertical integration in the agri-food chains of agricultural producers in Transylvania. The distribution of attested producers on the map reveals a higher density in the hilly and mountainous areas, where small-sized prevail, located in the proximity of large economically dynamic urban centres. Based on this spatial distribution, we can deduce that **the short agri-food supply chains characterise the farm to fork favourite route of food products certified by the national schemes.**

The cooperation between (local) actors in the agri-food sector for the sale of products through short food chains benefit from support through the National Rural Development Programme (Sub-measure 16.4 of NRDP 2014-2020), to continue in the context of the new National Strategic Plan 2021-2027.

This NRDP (National Rural Development Programme) measure has encouraged and supported cooperation between farmers, processors, retailers, restaurants, hotels, and other accommodation forms in the rural area, as well as partnerships with non-governmental organisations, education units and public authorities for the purpose of marketing agri-food products through short food supply chains and promotion of local products.

More than 200 **projects** funded under NRDP 2014-2020, dedicated to the establishment and operation of **short food chains, are located in Transylvania**, accounting for 60% of the total number of projects financed in Romania (see Map 2).

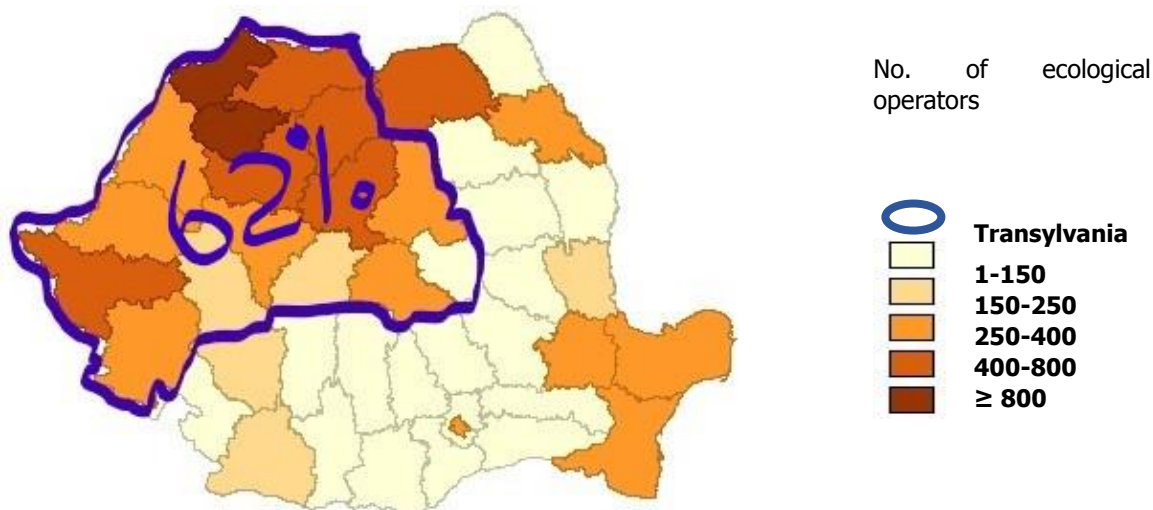
Map 2. Territorial distribution of projects under NRDP 2014-2020 measure dedicated to short food chains, by counties



Source: AFIR, open database, <http://opendata.afir.info/>

Short food chains also encourage transition to **organic farming** and other more environmentally friendly practices, such as **agroecology**, **regenerative farming**, and **agro-forestry**. Thus, support **landscape care** and development of more **extensive production systems** and **high nature value farming**. In the year 2020, there were 6400 operators in organic farming in Transylvania, accounting for 62% of the total number of companies certified as performing ecological activities¹ in agriculture nationwide.

Map 3. Territorial distribution of ecological operators in agriculture, by counties (2020)



Source: MARD, <https://madr.ro/agricultura-ecologica/operatorii-certificati-in-agricultura-ecologica-2020.html>

It is worth noting that farm diversification in the form of nature conservation tends to show a significant positive spatial correlation, as farms in proximity have a propensity to cooperate and exchange knowledge and experiences (Vroege et al., 2020).

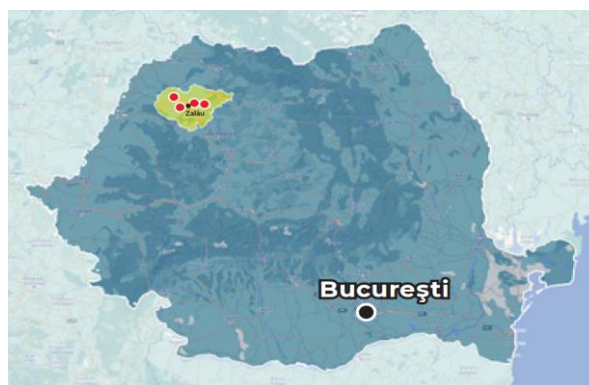
An example of good practice in the vertical integration in the agri-food chain is the Ecological Farms Cooperative "Silvania", located in the north-western part of Transylvania, in Sălaj county.

¹ Ecological activities - production, processing, marketing, import, export

Box 1: Ecological farms' cooperative "Silvania" (<https://silvania.bio/>)

<p>Value proposition:</p> <p><i>Organic, healthier food for a better world</i></p> <p><i>"Our dream is to become a benchmark for trusted BIO food"</i></p>	<p>Approach:</p> <p>Vertical integration in organic agri-food chain inside an ecological farms' cooperative.</p> <p>"Silvania.bio" cooperative farms over 2200 ha of organic agricultural area used for producing and processing ecological feed for over 1200 dairy cows and for organic sunflower oil. The cooperative processes and sells its organic milk and sunflower oil under its own brand: BIOFORIA. "Silvania.bio" and created 100 jobs in its farms and processing facilities.</p> <p>Solution – Development strategy path</p> <ul style="list-style-type: none"> • Conversion to organic, bio farming (2008) • Association into Cooperatives (2017) • Integration of the three links in the organic food chain: <ul style="list-style-type: none"> ○ Crops – production of feed (since 2008) ○ Livestock – production of milk, meat, and young breeding cattle (since 2010) ○ Processing of: Grains into combined feed (since 2010) Sunflower and other oilseeds into cold pressed oils and oilcakes (since 2017) Milk into cheese (since 2020) Milk into acidulated milk products (2022) Fattened calves into meat (since 2021) <p>Rationales:</p> <ul style="list-style-type: none"> • Increasing consumer demand for healthy foodstuffs, mainly from the population living in towns, with upward economic dynamics. • Added value generated by vertical integration in the agri-food chain. • Increasing bargaining power with the increase of the market share generated by farmers' association. • Trust and safety in terms of product quality (from agricultural raw materials to feed and milk and dairy products). <p>Replicability:</p> <ul style="list-style-type: none"> • The business model "Silvania.bio" proved its economic sustainability (ten-fold increase of turnover in the last ten years) and the positive social impact through the creation of 100 jobs. • In the context of Green Deal, the tested and functional ecological practices make Silvania a replicable model. • To be successful, the Silvania model can be replicated by farmers engaged in conversion to organic farming, who are willing to cooperate and jointly invest in vertical integration project in the agri-food chain.
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Map 4. Territorial location of the Ecological farms' cooperative "Silvania"



Source: <https://silvania.bio/>

1.2. Summary of position of the regional Multi-Actor Platform

In the peripheral rural areas of Transylvania, agriculture is the main economic activity that capitalises on local material and human resources. ***The diversification of farm activities and their integration in the agri-food chains is understood/perceived as the main driver of rural economy diversification, mainly in the peripheral rural areas of Transylvania, where small-sized farms prevail.***

Thus, the diversification of on-farm activities through agro-tourism, for example, processing of agricultural products for placing them on the market, etc., involves changing the business model on the farm, requires the development of new entrepreneurial skills for managing new farm activities, and involves increasing the utilisation of labour from the household and/or using professional labour skills external to the farm.

Similarly, the creation and development, at local/micro-regional level, of the agri-food chain links, leads to the diversification of the local business environment, the increase and diversification of job offers, contributing to the increase of the product portfolio and of the value of products placed on the market by the local economy, finally leading to the increase of the well-being of the entire community.

The long-term vision for the future of farms from the Transylvanian peripheral rural areas envisages a change in the business model from a closed, autarchic economy, based on own-produced food consumption, to an open economy that exchanges products and services from within rural settlements, with the urban areas and rest of the world.

The main **challenges** influencing farm diversification target the three key dimensions of the market: consumers' behaviour, organisation of supply in the agri-food supply chain, price of products.

- **Low awareness level of the benefits of consumption from local/regional sources** for the overall regional economic welfare, and for reducing the impact on the environment and people's health (through access to fresh products).
- **Low level of knowledge (including low level of trust) regarding quality schemes** for national and European agri-food products, both among producers and consumers in particular. It fuels a **misperception and confusion among consumers** (who, for example, often equate certified organic, natural products and products from the peasant market).
- **Excessive fragmentation of agricultural production and supply**, and low homogeneity of the quality of products coming from small farms.
- **Barriers to market access for small local agri-food producers** due to their reluctance to cooperate and (unfair) competition from large transnational retailers.
- **High cost of local economy products determined by small business size.** Small business cannot benefit from the effects of the economy of scale similarly to the large agri-food producers who are their competitors on the market.

- **Low level of information and advice** on opportunities to diversify farm activity supported by rural development programs and other government initiatives.
- **Rigid regulatory framework and territorial disparities in interpretation of it**, which constrains the chances of implementing initiatives to diversify activity at farm level (see sanitary-veterinary regulations differently interpreted by the county authorisation and control institutions).

The main **factors contributing** to surmounting the obstacles for **Transylvanian agricultural producers' market integration** are part of the **incipient process of entrepreneurial discovery** (Marinelli, Perianez-Forte, 2017) and include:

- **There is a general trend of changing consumer preferences in Romania in general, and in Transylvania in particular**, according to which consumers are increasingly oriented **towards local traditional and ecological agri-food products**. The increasing demand for agri-food premium products creates the premise for accessing the European or national quality schemes (PDO, PGI, GI, eco, mountain product, traditional product, established recipe, etc.) and **leads to the diversification of farms' portfolios of activities, by processing agricultural products and integration of farms in short food chains**.
- There is **political support** and an institutional framework for the **certification of (local) food products within national quality schemes**, which add to the quality schemes recognised at European level. This normative framework also targets the attestation and control of producers authorised to produce nationally certified foodstuffs.
- **Financial support exists for creating and supporting the short agri-food supply chains** within the current and next national rural development programs, with measures dedicated to this need.
- **The COVID-19 pandemic has proved the importance of short agri-food chains**, locally established, in **ensuring access to staple products**, especially for urban consumers
- **Newcomers to rural areas are an important vector of changing the structure of the rural economy** by stimulating the process of local entrepreneurial discovery generated by their consumption needs and openness to innovation and digitisation.

Key Research Gaps:

- The entrepreneurial discovery process needs **scientific evidence on market dynamics and support needs for rural actors**.
- To design policies and programs to support the diversification of activity on farms, **up to date statistical information and prognosis at territorial level are needed** on the type of farm activities, incomes and costs involved by these activities, including the need for human capital.
- Farm activity diversification and integration in agri-food chains presupposes entrepreneurial skills and training of managers and the labour force engaged in agri-food activities. **A detailed analysis of qualification and professional vocational training in the context of farm diversification is needed** to substantiate educational and training programs that address these training needs.
- In order to raise public/consumer awareness on the multiple benefits of consuming local foodstuffs, **studies are needed to provide scientific evidence on the economic, social and environmental cost-benefit ratio of local procurement**. Food safety and security as well as the **impact on public health of food and its ingredients** are issues that require further study and public dissemination.

Recommendations for the local/regional/national level:

- To be sustainable, the approach to farm diversification should **respond to and follow market signals and take into consideration local resources and capabilities**.
- **Supporting the entrepreneurial discovery process** - strengthening partnerships between policy makers, public administration, researchers and representatives of the agri-food sector so

that **all actors actively participate in decision making on public policies and programs (evidence-based & calibrated to market dynamics)** and assume their implementation, both at national and regional and local level.

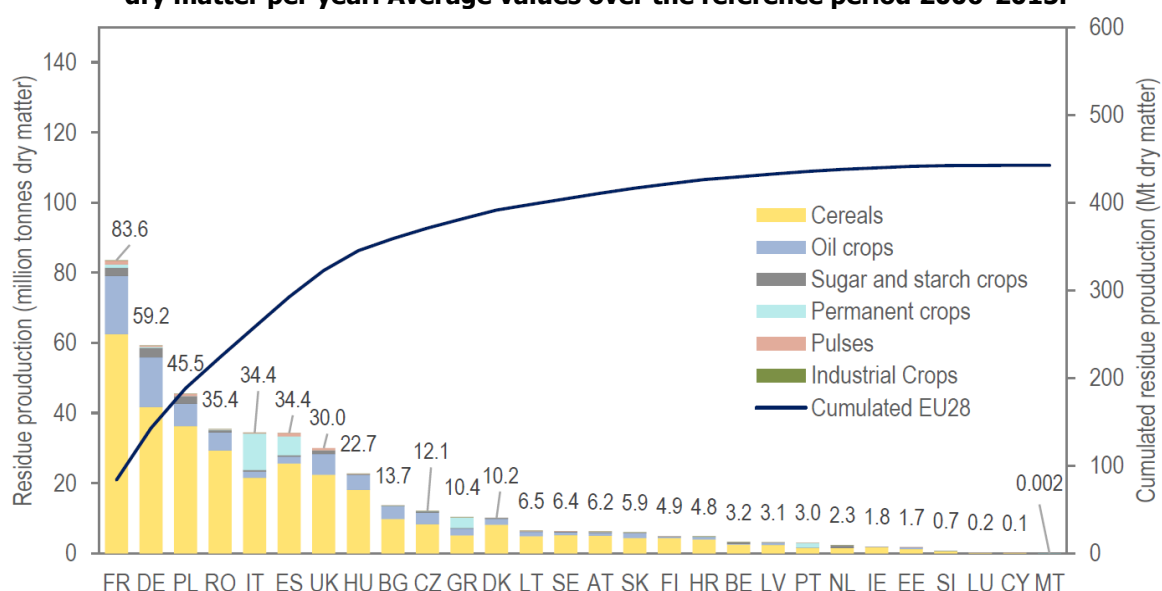
- **Construction of local/micro-regional brands around a local narrative** to contribute to the individualisation of products from a rural micro-area and to their fixation in the collective mindset of producers from the respective micro-area and of consumers.
- Actions **to increase consumer information** on quality schemes and the benefits of local consumption associated with the **improvement of food traceability** will contribute to increasing the confidence of the population in local products.
- **In-depth analysis of the need for qualifications and professional training in the context of farm diversification** to substantiate educational and training programs aimed at meeting these training needs.
- **The national/local food programs** (like "Roll and Milk" or "Fruit" in schools and other similar) **should receive support through public procurement of local food products**, from recognised quality schemes.
- **The use of media channels and digital tools for advertising** and integration of local rural economy products in the market.

2. Bio-economy and sustainable management of resources

2.1. Key scientific evidence

Romania is one of the largest agricultural residue biomass producers in the EU by crop groups (cereals, vegetables, etc.). According to JRC data, Romania delivers 9% of total agricultural residues of biomass produced in 28 EU countries per year and is **counted in the 5 top biomass producers** (Figure 2).

Figure 2. Residue production from the main crop groups per member state, expressed in Mt of dry matter per year. Average values over the reference period 2006-2015.



Source: Camia A., Robert N., Jonsson R., Pilli R., García-Condado S., López-Lozano R., et al. (2018): Biomass production, supply, uses and flows in the European Union. First results from an integrated assessment, EUR 28993 EN, p. 18

This relevant biomass production in Romania could be **a driver to create a biomass network for cooperation**, aimed at the development of new biomass processing, biorefining, new directions of biomass use for added value biomaterials, and also channels for biomass delivery to countries that do not produce it, creating new jobs. Romania does not have a bioeconomy strategy in place (yet) and this gap is covered by (mostly private) dispersed and uncoordinated initiatives for biomass exploitation.

The main challenges that limit possible economic use of agricultural (biomass) residues, e.g. for bioenergy production, are the **large volumes and transport costs** from the harvested field to the processing units, cost that is bigger than bioenergy itself.

There are some initiatives in Transylvania that manage to counterbalance these challenges, one of them being "One village – 1 MW" initiative, aiming to advance the use of community-scale biomass energy by providing technical consulting services, biomass energy program design and delivery, and education and outreach on best practices.

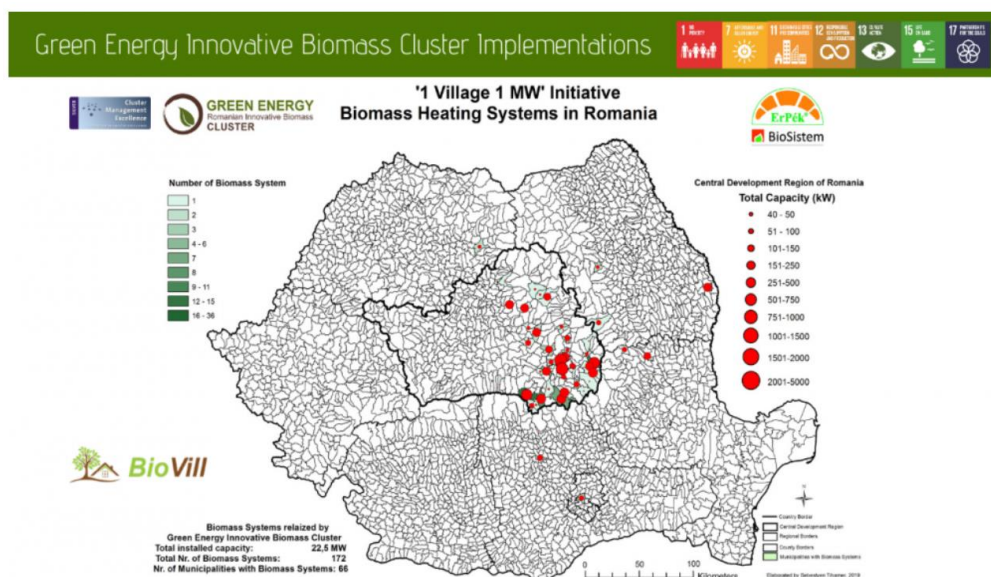
The "One village – 1 MW" initiative is the focal point of the Green Energy Biomass Cluster (<https://www.greencluster.ro/english/>), founded in 2011 in the NUTS II Centre region. The mission of the cluster is to link businesses, research organisations, universities and public administration in order to enhance cooperation, stimulate innovation, spread knowledge in the field of solid biomass, the most important renewable energy source in Romania.

The cluster aims to deploy innovative solutions and synchronise the production and utilisation of solid biomass by developing the biomass value-chain and enhancing cooperation among cluster participants (business – supply chain actors, RDI centres, local/regional authorities).

Box 2: "One village 1 MW" initiative (<https://www.greencluster.ro/>)

<p>The main question</p> <p><i>How to integrate the wood waste and other burnable solid biomass waste in a circular process and make energy - heat in a sustainable way?</i></p>	<p>Approach:</p> <ul style="list-style-type: none"> • Involvement of local community → villagers collectively collect local wood and green waste to be used for heating the most important public buildings (schools, hospitals, churches, mayor's offices) using small-scale bioenergy systems (biomass boilers).
	<p>Solution:</p> <ul style="list-style-type: none"> • Implantation of Small-scale community-based bioenergy systems (up to 1 MW) developed with the support of business and RDI centres • Local mobilisation of underutilised bio sources has great potential to develop local jobs and economies and to ensure the energy of rural settlements.
	<p>Rationales:</p> <ul style="list-style-type: none"> • Wood/green waste is always at hand in all Romanian villages • There are already in place some good practice examples that prove the functionality of small-scale bio-energy solutions: entrepreneurs that have their own energy willow plantations and generate bioenergy for their companies (for example a bakery, wood industry company, centre for people with disabilities, greenhouses).
	<p>Replicability:</p> <ul style="list-style-type: none"> • Small-scale biomass heating systems have great potential to be replicated in all Romanian rural communities. The Green Energy Cluster already succeeded in reaching a number of 66 Transylvanian municipalities that benefit from this solution (see Map 4)

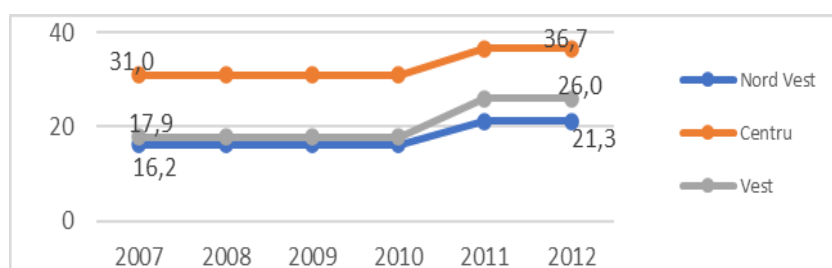
Map 5. Territorial distribution of "1 village – 1 MW" initiative implementation



Source: <https://www.greencluster.ro/english/presentation.html>

In Transylvania region, **54% of localities** are located in **areas classified as high natural value areas (HNV)²**. In these areas, there are still rural communities where the inhabitants preserve the traditional way of life, which can be made value of for (agro-)tourism purposes under conditions of increasing interest of the urban population to have access to nature (wild nature in particular) and to authentic culinary experiences in Romania.

Figure 3. Share of land area covered by Natura2000 (NUTS II regions)



Source: INSSE, https://insse.ro/cms/files/IDDT2012/index_IDDT_en.htm

At the same time, **one quarter of Transylvania's territory is covered by Natura 2000 sites**, most of these sites encompassing peripheral/remote rural communities. The status of rural communities located in a Natura 2000 sites **favours the development of ecosystem services, organic agriculture, agri-tourism etc.**, in the farming system of the Natura 2000 sites. All these can lead to the implementation of new business models in the peripheral rural communities, which can provide jobs and high incomes for the rural population.

There are already initiatives and projects in rural Transylvania aiming to support farmers in Natura 2000 sites to turn the limitations that the protected site status imposes on farming practices into welfare benefits at local level. One of these is the *"LIFE Transylvania cooperation"* project, implemented by ADEPT foundation.

² Annex 5 - List of HNV municipalities, documentation Sub-measure 16.4 and Sub-measure 16.4a – Support provided for horizontal and vertical cooperation between the actors in the supply chain in the agricultural and fruit farming sectors, <https://www.afir.info/>

Map 6. Location of LIFE Transylvania cooperation project



For a period of three years (September 2020-December 2023), through the LIFE Transylvania cooperation project, ADEPT Foundation has been working with farming communities in two valleys in the Tarnava Mare area (Angofa valley/Apold Commune, Viscri Valley/Bunesti commune). They have sought to demonstrate how cooperative management based on co-designed local management plans, suited to the small-scale ownership and management mosaic, including concrete actions for habitat restoration/protection, can improve the protection of HD grassland habitats and species. The cooperative approach will improve the effectiveness of agri-environment schemes, maintain landscape features, and improve/maintain the conservation status of threatened habitats especially wildflower-rich hay meadows. At the same time, it will bring improved economic returns to act as an additional incentive to continued traditional farming. This demonstration will include local, regional and national impact, on farmers, general public and policy makers.

For more details, visit the project website: <https://fundatia-adept.org/projects/life-transilvacooperaion/>

2.2. Summary of position of the regional Multi-Actor Platform

Although Romania's rural economy is mostly based on the exploitation of local biological resources, **there is no national strategy and/or regional strategies dedicated to the field of bioeconomy, with an integrative vision.** Bioeconomic topics are included in related strategies, such as: National Agriculture and Rural Development Plan; Regional smart development strategies (RIS3), and the Research & Innovation Strategy. In the collective narrative, **bioeconomy is associated with primary agricultural production and with the targets included in the European Green Deal** aiming at reducing the utilisation of chemical inputs in agriculture. From this perspective, **there are opinions that supporting the bioeconomy will lead to the expansion of monocropping in Transylvanian agriculture with negative consequences on the diversity** of landscape and the supply of agricultural products which, in their turn, have a negative impact on food security in the region.

Significant biomass amounts resulting from agricultural production and wood waste are **under- or non-utilised in rural Transylvania.** The availability of these resources represents an opportunity for the development of the bioeconomy in rural areas. At the same time, **the great territorial dispersion of biomass from agriculture** (small-sized farms and land fragmentation) is an obstacle to the efficient use of these resources in economic terms, due to transport cost associated to the collection of biomass.

One of the **feasible solutions** to surmount the obstacles specific to rural Transylvania **for the valorisation of biomass** envisages **the implantation of small-scale local biorefineries in rural communities** that convert residual biomass into intermediate biomass products suitable to be transported at lower costs than biomass feedstocks itself. Part of these available biomass could be also used locally for producing energy and/or heating public buildings, similarly to the model from 1 Village – 1 MW initiative presented above.

The Green Energy Cluster experience shows that the successful implementation of local solutions in bioeconomy is based on three **key factors that facilitate the adoption of innovative solutions** for the use of local biomass:

- Reshaping the rural community mindset by **establishing a new sustainable energy management mentality at local level** among local people.
- **Technological and advisory support** for local communities to successfully implement new bioenergy technology.
- **Integrating rural communities in knowledge/experience transfer programs/projects** based on existing small-scale, functional and **replicable good practices** in bioeconomy.

To support these three key factors that act as catalysts in the development of bioeconomy at the level of rural communities, there are a number of **specific research and information needs**:

- **Increasing awareness of local actors regarding the local capabilities for building their own sources of energy** and the additional value-added generated by integrating biomass in the energy circuit **requires a series data-based evidence** that should contribute to:
 - i) assessment of the availability of biomass from different sources and its potential uses,
 - ii) assessment/estimation of the capacity of technological solutions based on the valorisation of biomass to ensure: local energy independence, reduction of energy/heating costs, profitability through the export of intermediate products from biomass, creation of local jobs, carbon footprint reduction and contribution to combating climate change.
- **Providing external technological support** by developing smart biomass-use equipment and support for its installation and maintenance implies research and innovation centres support for **developing small-scale community-based bioenergy systems and other novel technology for biomass valorisation**. External support is also needed for **training the local workforce** involved in the exploitation of these facilities.
- **Education, training, research and technology transfer programs dedicated to circular bioeconomy**, adapted to rural specificities are needed to accelerate the adoption of bioeconomy solutions in rural areas.
- Providing scientific evidence on the **cost-benefit ratio generated for a local economy by its status of area with special natural protection**.

Main recommendations:

- **Popularising the bioeconomy concept in its entirety (beyond the production of agricultural raw products)** and the cost-benefit ratio that the adoption of circularity in the rural economy generates for the community, the business sector and the environment.
- **Developing strategies and plans dedicated to circular bioeconomy**, in which the marginalised / peripheral rural areas benefit from dedicated support.
- **Active policy and financial support for implementing bio-based solutions in rural areas**, including fiscal facilities for adopting green solutions, can be an incentive/significant driver for the involvement of all (public and private) rural actors in circular economy.
- **Technological development** for biomass capitalisation, **facilitation of innovation access and transfer** at the rural micro-regional level and **professionalisation**.
- **Promoting successful business models in bioeconomy** with a particular focus on economic aspects (profit rate, market) acts as a catalyst to encourage private investment in this segment.
- **Showcasing good practices exchange among rural communities** can help change the mentality of rural people and embrace a sustainable approach to unused or underused local biomass resources.
- **Exchanging good practices** in the management of natural (agricultural and forestry) resources in the natural protected sites, showing **the possibilities to turn restrictions on the conservation of biodiversity specific to protected areas into comparative and competitive advantages for the local economy**.

Recommendations and Conclusions

The diversification of the Transylvanian rural economy ***focuses on the change of business models in the dominant economic sector - agriculture*** - by diversifying the activity within the farm, developing vertical integration in agri-food chains (short), and through sustainable management of local agricultural resources based on circular bioeconomy.

This vision is anchored in current market trends, considers societal expectations and the strategic objectives (Green Deal) of limiting the impact of human activities on the environment.

However, this vision requires:

- **Supporting the process of entrepreneurial discovery** at administrative level by building platforms (national, regional, local) to enable, support and guide the participation of all stakeholders in the process of developing policies and programs dedicated to the diversification of rural activities.
- Encouraging and supporting the **participatory rural (local) framework** for drawing up local development plans with the participation of all public and private actors.
- **Coherence and synergies between public policies and programs** dedicated to supporting integration into agri-food chains of agricultural producers.
- **Scientific evidence** to substantiate the strategic plans for vertical integration in the agri-food industry and bioeconomy.
- Articulation of **a single strategy dedicated to the bioeconomy**, followed by regionally targeted policies and programs to support green approaches in the agri-food industry.
- **Raising awareness and information** on the impact that productive and consumer decisions have on the natural environment, as well as on business and the well-being of local communities as a whole.
- Dissemination and **exchange of good practices and lessons learned** between rural actors directly involved/interested in diversifying the agricultural economy.
- Support for **technological development and professional training** necessary for the implementation of innovative technologies in rural areas, farm diversification, integration on value chains, etc.
- **Information office and consultancy services** that stimulate and support the diversification initiatives of rural actors.
- **Using digitalisation as a marketing tool** for local rural economy products.

Annex 1: Key scientific evidence or activities cited by the Multi-Actor Platform

- National quality schemes implemented by MARD
- Short agri-food chains supported through NRDP
- "Fruit in schools" and "Roll and milk in schools" schemes
- Ecological farms' cooperative "Silvania"
- 1 village – 1 MW" initiative
- LIFE Transylvania cooperation project

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Appendix

Table 1 Compilation of noteworthy projects / initiatives / tools / methods implemented

Name	Time of implementation	Contact & Internet address
1 village – 1 MW initiative	2011 →	https://www.greencluster.ro/
Ecological farms' cooperative "Silvania"	2017 →	https://silvania.bio
Project LIFE Transylvania cooperation	2020-2023	https://fundatia-adept.org/projects/life-transilvacoperation/



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